



# The Impact of the COVID-19 Pandemic on Life and Death in Chicago, 2020

Life Expectancy Roundtable  
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Results reported by:

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**COVID-19 was the 2<sup>nd</sup> leading cause of death in Chicago during 2020. Cancer mortality was the only leading cause to decrease in number from 2019**



All Chicago Residents, 2020			
Rank	Primary Cause of Death	Frequency	Percent
	<b>All causes</b>	<b>25644</b>	
1	Heart disease	5325	20.7
2	COVID-19	4108	16.0
3	Cancer	4056	15.8
4	Accidents (drug overdoses, car crashes)	1831	7.1
5	Stroke	1366	5.3
6	Diabetes	814	3.2
7	Homicide	723	2.8
8	COPD	639	2.5
9	Alzheimer's disease	527	2.1
10	Kidney disease	495	1.9

Source: IDPH vital records as analyzed by CDPH Office of Epidemiology

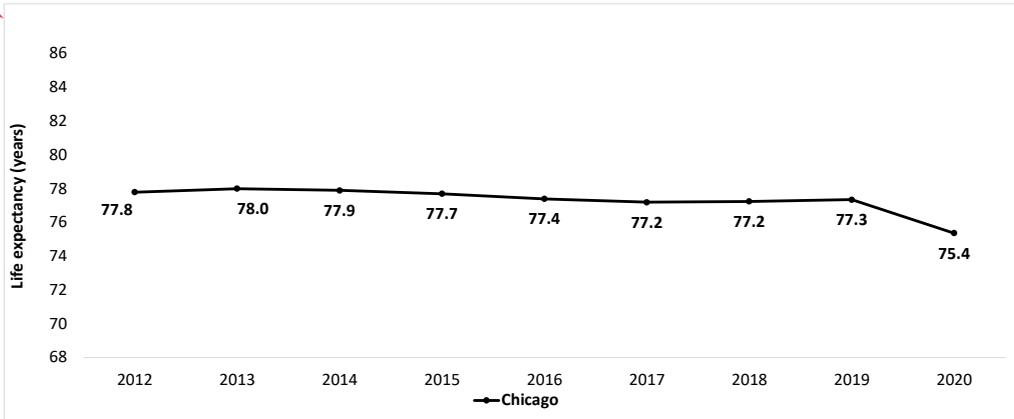
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For comparison:

2019 Top 10 Leading Causes of Death

- 1 Heart Disease
- 2 Cancer
- 3 Accidents
- 4 Stroke
- 5 COPD
- 6 Diabetes
- 7 Kidney Disease
- 8 Homicide
- 9 Alzheimer's disease
- 10 Influenza and pneumonia

### Life Expectancy in Chicago dropped almost 2 years since 2019

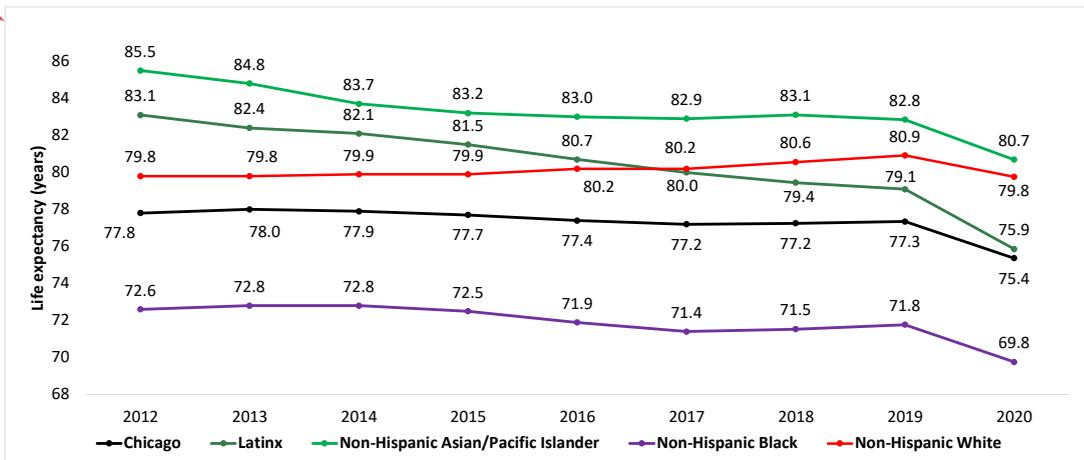


Source: IDPH vital records as analyzed by CDPH Office of Epidemiology

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Life expectancy in Chicago decreased by nearly two years from 2019 to 2020, the largest single-year decrease on record.

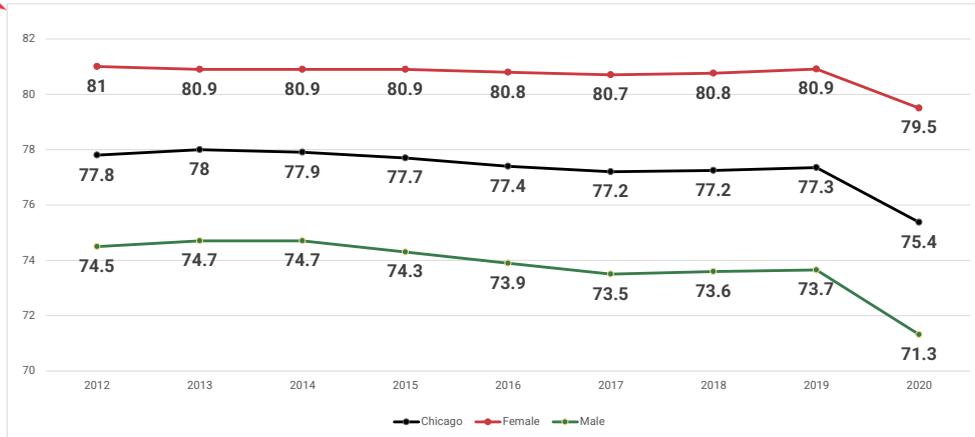
Decreases in life expectancy were seen among all race-ethnicity groups in 2020



Source: IDPH vital records as analyzed by CDPH Office of Epidemiology

The largest decline in life expectancy from 2019 to 2020 was among Latinx Chicagoans, at 3.2 years. Black and Asian-American Chicagoans experienced life expectancy declines of 2 years, and white Chicagoans' life expectancy decreased by 1 year.

### Decreases in life expectancy were seen among both males and females in 2020

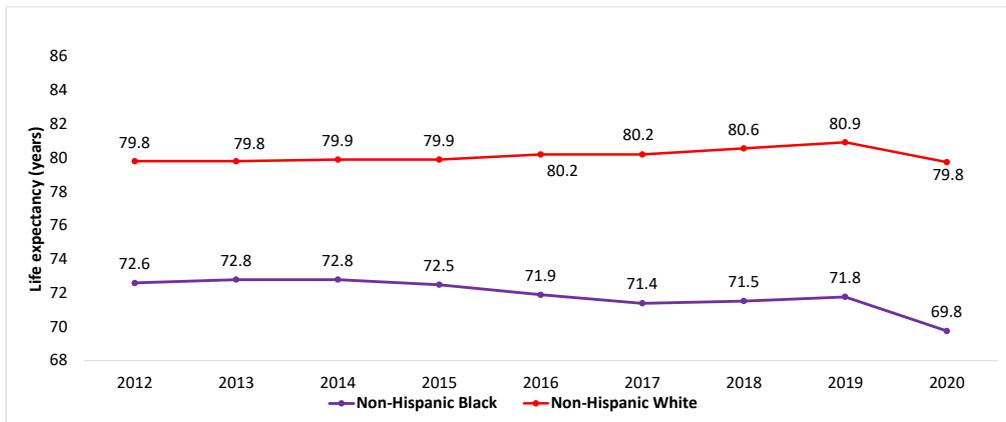


Source: IDPH vital records as analyzed by CDPH Office of Epidemiology

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The largest decline in life expectancy from 2019 to 2020 was among males. Males experienced a 2.4 year drop in life expectancy compared to 1.4 years among females

Life expectancy gap between Blacks and white increased to a full 10.0 years. Life expectancy among Blacks decreased to below 70 years for the first time in decades.

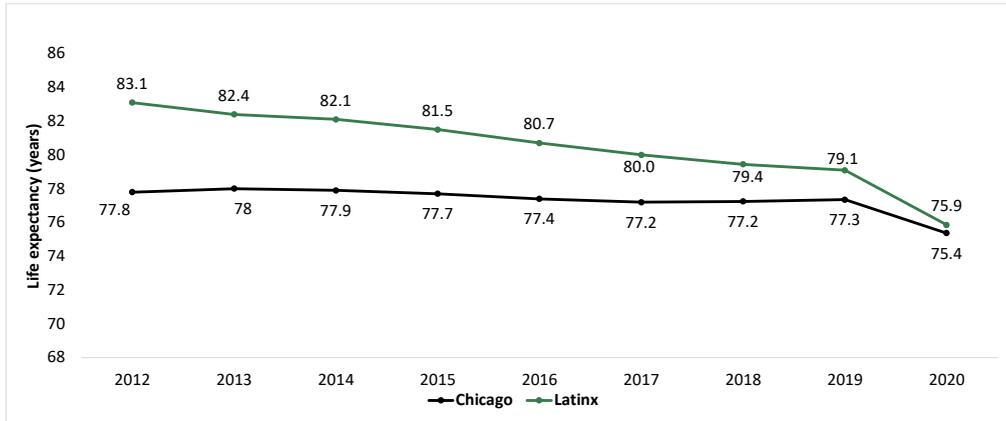


Source: IDPH vital records as analyzed by CDPH Office of Epidemiology

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The life expectancy gap between Black and white Chicagoans increased to 10 years in 2020. For the first time since 2001, the life expectancy among Black Chicagoans was below 70 in 2020. The life expectancy gap between 2019 and 2020 for Black and white Chicagoans increased by 0.9 years (gap of 9.1 to 10 years), equal to the increase seen between 2015 to 2016 (gap of 7.4 to 8.3 years).

Once the highest among all race-ethnicity groups, Latinx Chicagoans have lost over 7 years in their expected length of life since 2012



Source: IDPH vital records as analyzed by CDPH Office of Epidemiology

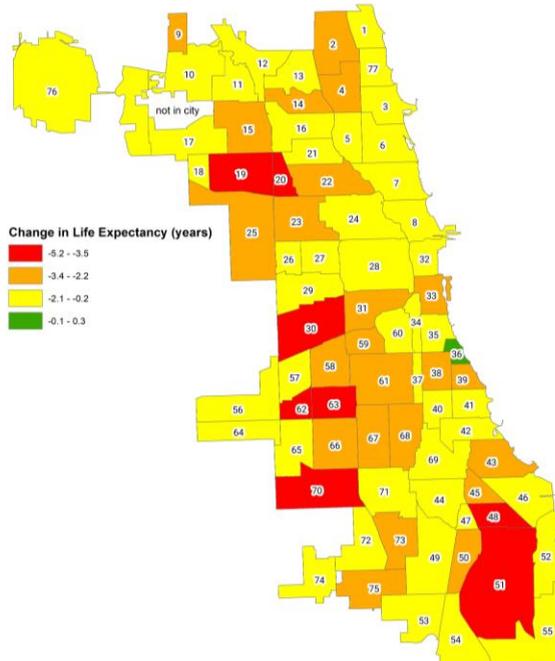
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Once the second-highest among all racial-ethnic groups (after Asian-Americans), Latinx Chicagoans have lost over 7 years in their expected length of life since 2012.

## Change in Life Expectancy by Chicago Community Area, 2019 to 2020

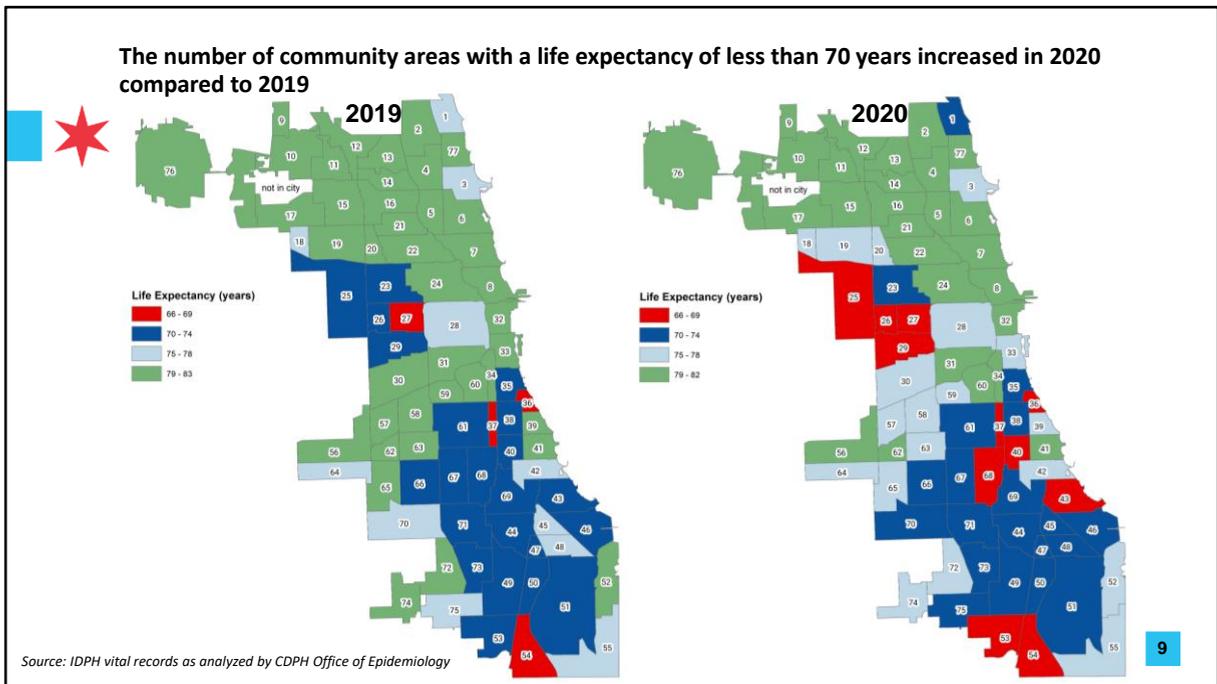


Top 10 Decreases by Community Area			
Community Area	2019	2020	Change, in years
Gage Park	79.5	74.2	-5.2
West Elsdon	83.1	78.8	-4.3
South Lawndale	78.9	74.9	-4.0
South Deering	74.0	70.1	-3.9
Calumet Heights	74.8	70.9	-3.9
Belmont Cragin	79.2	75.4	-3.8
Hermosa	79.5	75.8	-3.7
Ashburn	76.1	72.6	-3.5
Logan Square	81.3	78.1	-3.2
Grand Boulevard	73.9	70.8	-3.1
Avalon Park	74.6	71.5	-3.1

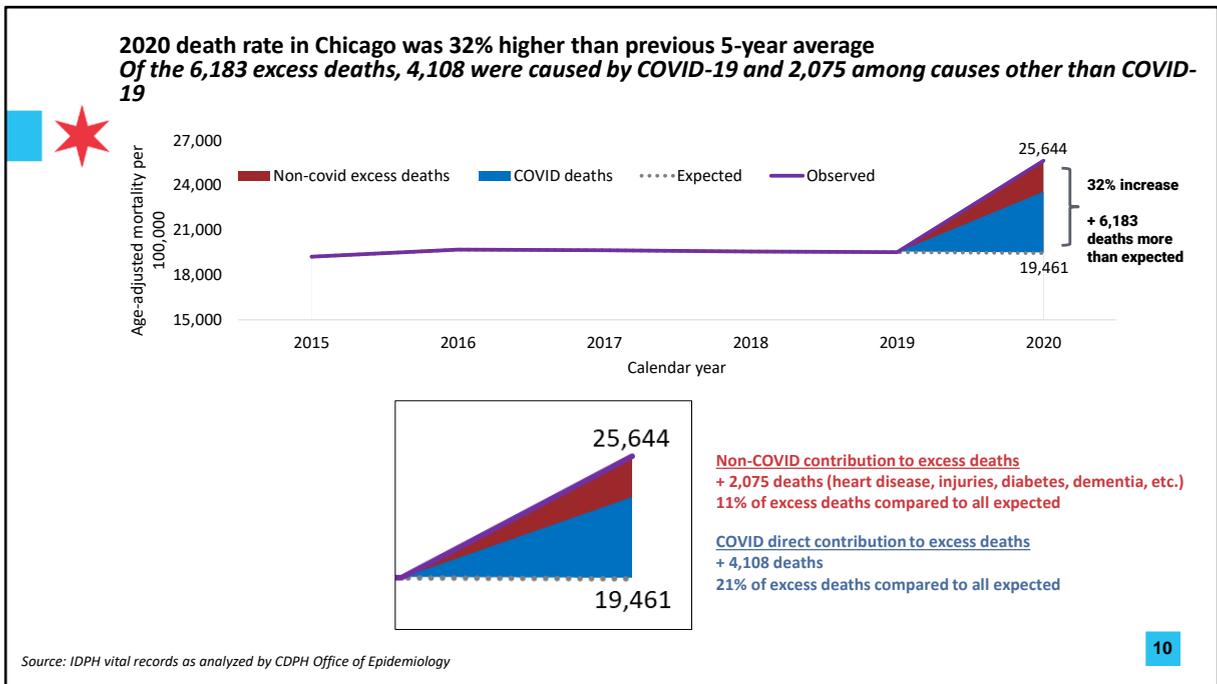


Source: IDPH vital records as analyzed by CDPH Office of Epidemiology

76 of Chicago's 77 community areas saw a decrease in life expectancy from 2019 to 2020. 12 community areas experienced a decrease in life expectancy of more than 3 years from 2019 to 2020.



The number of Chicago community areas with a life expectancy of less than 70 years was 4 in 2019, and 11 in 2020, nearly tripling in one year. All 11 community areas with life expectancies of less than 70 years of age are predominantly of Black population and very low economic hardship level



There was a 32% increase in excess deaths – the difference between observed and expected deaths compared to average number of deaths in the past 5 years. From 2019 to 2020, there were 6,000 more deaths than expected. Overall, 21% of the excess deaths seen in 2020 compared to 2019 were due to COVID-19, while 11% of the excess deaths were due to all other deaths combined.

Of 2,075 non-COVID excess deaths, over 1,600 among the top 10 leading causes: homicide, diabetes, accidental deaths, alzheimers, stroke, heart disease

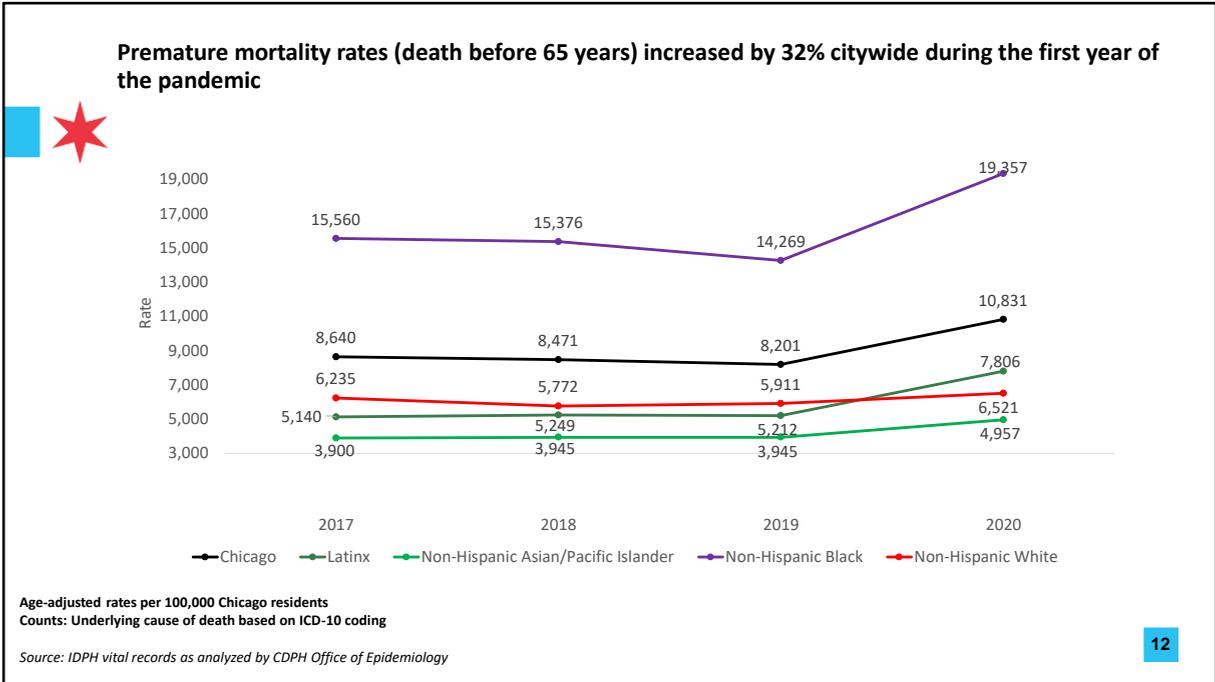


<u>10 leading cause of death 2020</u>	<u>Observed deaths</u>	<u>Expected deaths</u>	<u>Excess death (count)</u>	<u>Excess deaths (%)</u>
Assault (Gun-related homicides, etc.)	723	468	255	54%
Diabetes mellitus	814	585	229	39%
Accidents (Drug overdoses, Motor vehicle accidents, etc.)	1,831	1,448	384	26%
Alzheimer's disease	527	431	97	22%
Cerebrovascular diseases (Stroke)	1,366	1,231	135	11%
Diseases of heart	5,325	4,831	494	10%
Nephritis, nephrotic syndrome and nephrosis (Kidney Disease)	495	491	4	1%
Malignant neoplasms (Cancer)	4,056	4,026	30	1%
Chronic lower respiratory diseases (COPD)	639	635	4	1%
Coronavirus disease 2019	4,108	0	4108	100%

Source: IDPH vital records as analyzed by CDPH Office of Epidemiology

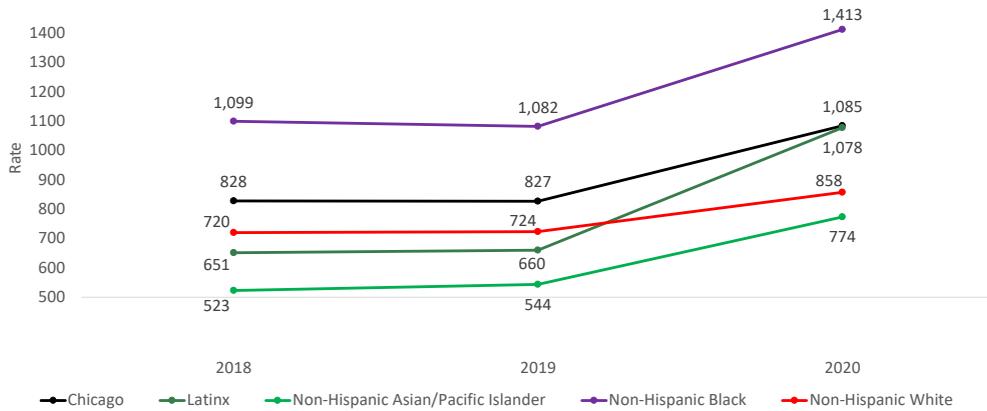
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Heart disease was the leading cause of death in Chicago in 2020; Coronavirus disease 2019 and cancer were the 2<sup>nd</sup> and 3<sup>rd</sup> leading causes of death, respectively. However, when looking at excess deaths (the difference between expected and observed deaths), homicides were over 50% greater than expected, while deaths due to diabetes and unintentional injuries were nearly 40% and over 25% greater than expected, respectively.



Premature mortality – defined as death at less than 65 years of age - increased by 32% citywide during the first year of the pandemic, after a 3-year downward trend. Premature mortality increase and among all racial-ethnic groups, and among both males and females. In 2020, Black Chicagoans were 2.5 times more likely to die prematurely than Latinx Chicagoans, 3 times more likely to die prematurely than white Chicagoans, and nearly 4 times more likely to die prematurely than Asian/Pacific Islander Chicagoans.

**Overall death rates increased across all race-ethnicities from 2019 to 2020.**



Age-adjusted rates per 100,000 Chicago residents  
 Counts: Underlying cause of death based on ICD-10 coding

Source: IDPH vital records as analyzed by CDPH Office of Epidemiology

Overall death rates increased across all race-ethnicities from 2019 to 2020. Nearly half the deaths – 49% - were among Black Chicagoans. The increase in overall death rates varied greatly by race-ethnicity. For white Chicagoans, the overall death rate increased by 19%. For Blacks and Asian/Pacific Islanders the overall death rates increased by 31% and 42%, respectively. For Latinx Chicagoans, the overall death rate increased by 63%.

**Overall death rates increased across all adult age groups between 2019 and 2020;  
Largest rate increase seen among 18-29 year olds**



	2017		2018		2019		2020	
	#	Rate	#	Rate	#	Rate	#	Rate
Chicago	19663	818.7	19565	828	19525	827.2	25644	1084.8
Ages 0-17	360	57.9	377	60.6	302	48.6	279	44.9
Ages 18-29	696	120.6	559	96.9	528	91.5	794	137.6
Ages 30-44	1039	168.2	1079	174.7	1075	174.1	1561	252.8
Ages 45-64	4743	788.4	4745	788.7	4701	781.4	6193	1029.4
Ages 65+	12790	4601.8	12774	4596.1	12882	4634.9	16790	6041

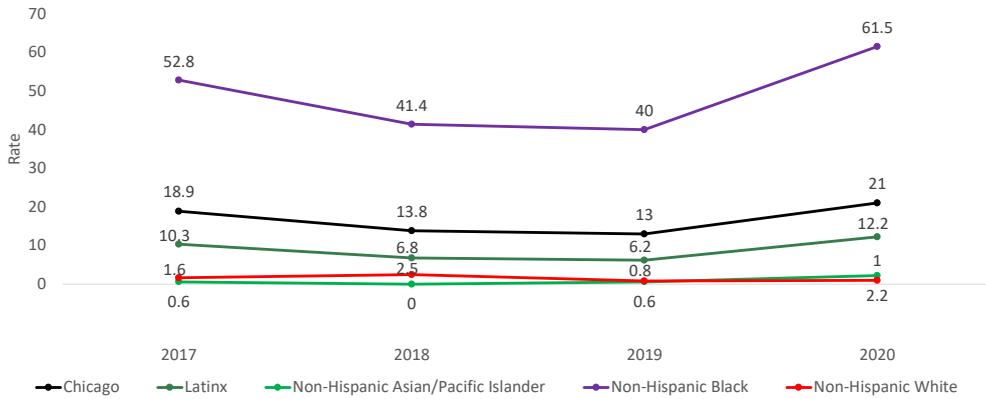
Age-adjusted rates per 100,000 Chicago residents

Source: IDPH vital records as analyzed by CDPH Office of Epidemiology

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Overall death rates increased across all adult age groups from 2019 to 2020. Death rate among 0 to 17 year olds decreased by 8% compared to 2019. The largest 1-year rate increase among age groups was among 18-29 year olds (50%) and 30-44 year olds (45%). Death rate among 65+ years increased by over 30% compared to 2019.

**Death rates from gun-related homicide increased by over 60% during the first year of the pandemic.**



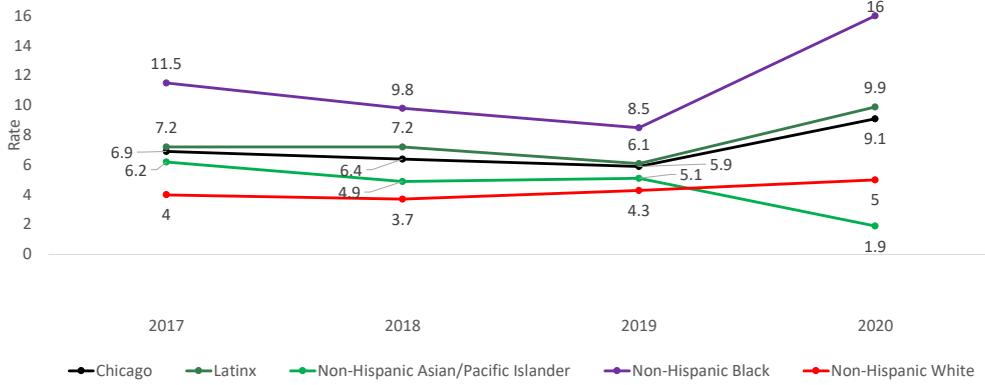
Age-adjusted rates per 100,000 Chicago residents  
 Counts: Underlying cause of death based on ICD-10 coding

Source: IDPH vital records as analyzed by CDPH Office of Epidemiology

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Increases were observed among all race-ethnicities and among both males and females. Rates among Latinx nearly doubled; rates among Blacks, already the highest by a very large margin, increased by more than 50%. The Black-white disparity in 2020 was at an historic high.

**Death rates from motor vehicle accidents increased by 54% during the first year of the pandemic.**

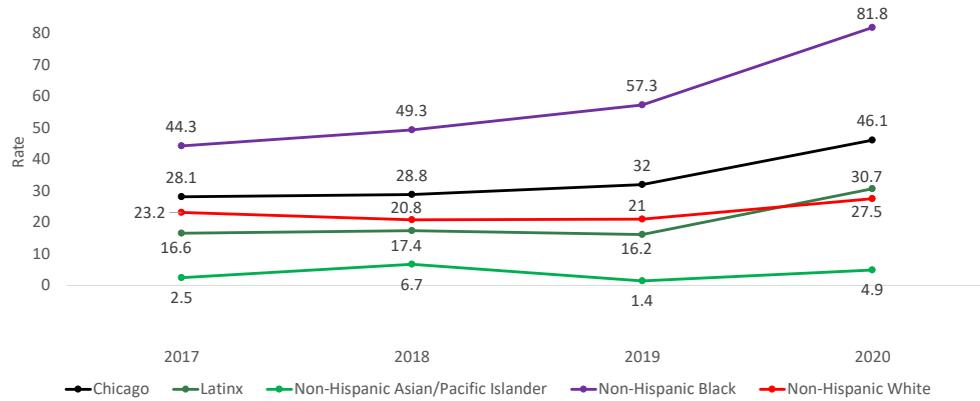


Age-adjusted rates per 100,000 Chicago residents  
 Counts: Underlying cause of death based on ICD-10 coding

Source: IDPH vital records as analyzed by CDPH Office of Epidemiology

Death rates from motor vehicle accidents among Chicagoans increased sharply from 2019 to 2020, by 54%. While increases were seen across all racial-ethnic groups, and among both males and females, the motor vehicle accident death rate among Black Chicagoans, already the highest among all racial-ethnic groups, increased by 88%.

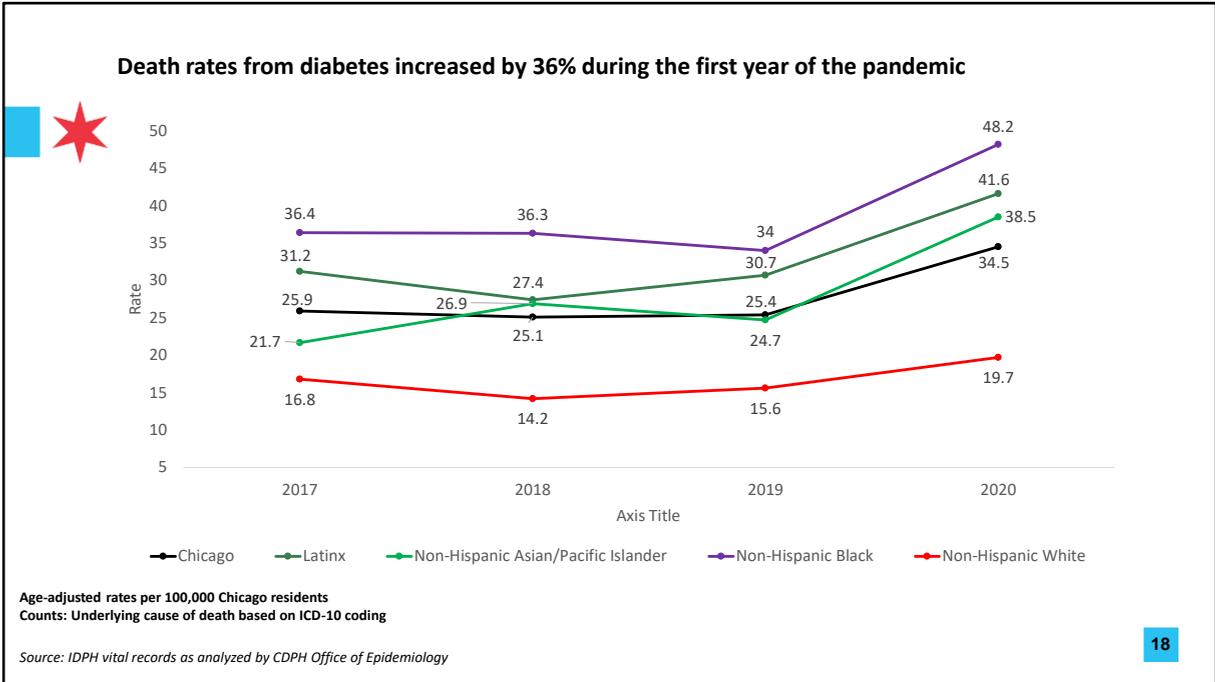
**Death rates from drug overdoses increased by 44% during the first year of the pandemic.**



Age-adjusted rates per 100,000 Chicago residents  
 Counts: Underlying cause of death based on ICD-10 coding

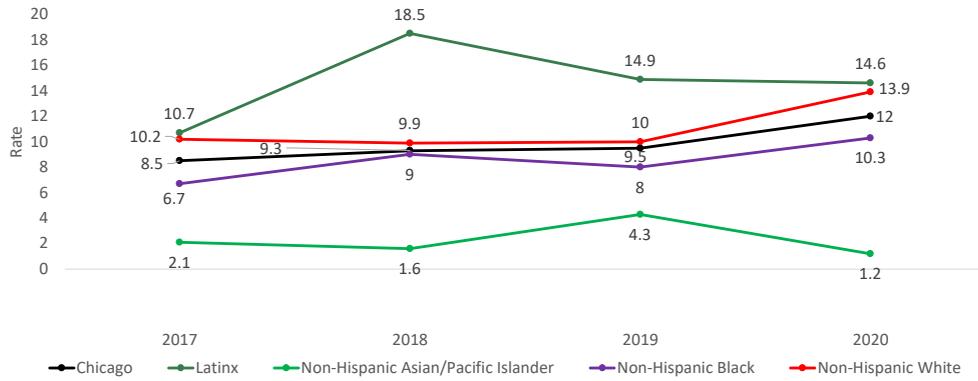
Source: IDPH vital records as analyzed by CDPH Office of Epidemiology

Death rates from drug overdoses increased by 44% during the first year of the pandemic. Increases were observed among all race-ethnicities and among both males and females. Rates among Latinx nearly doubled during the pandemic. Rates among Blacks increased 43% in 2020 to a level which exceeded the death rates among Blacks for homicide and diabetes. The drug overdose mortality rate of Black Chicagoans was 2 times to 4 times higher than other racial-ethnic groups.



Death rates from diabetes increased among Chicagoans by 36% during the first year of the pandemic to its highest level in 20 years. Increases were observed among all race-ethnicities and both males and females; the largest increase was seen in Blacks, Asian/Pacific Islanders and males.

**Alcohol-related deaths increased by 25% during the first year of the pandemic.**

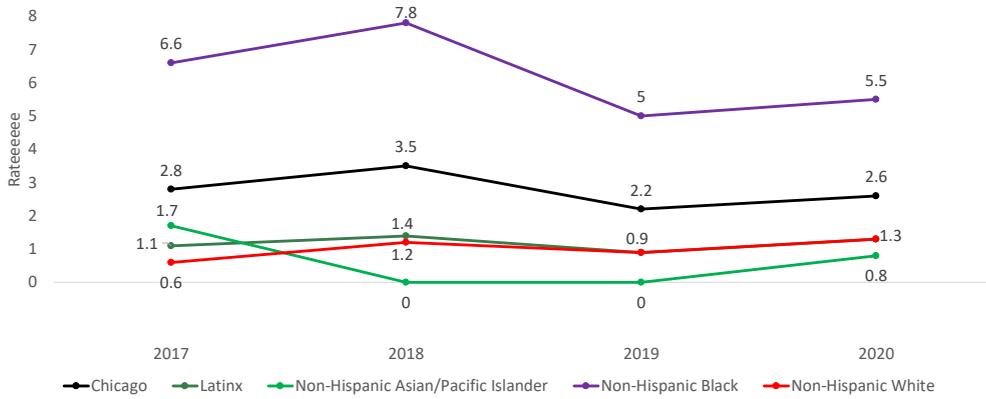


Age-adjusted rates per 100,000 Chicago residents  
 Counts: Underlying cause of death based on ICD-10 coding

Source: IDPH vital records as analyzed by CDPH Office of Epidemiology

Alcohol-related death rates increased by more than 25% during the first year of the pandemic. A 39% increase was observed among white Chicagoans, and a 29% increase was observed among Black Chicagoans. While the rate of alcohol-related death for males, was nearly 3 times the rate for females, the rate from 2019 to 2020 increased more among female Chicagoans at 21% versus a 17% increase for males.

**Overall HIV mortality increased by 18% during the first year of the pandemic in all race-ethnicity groups and among males**

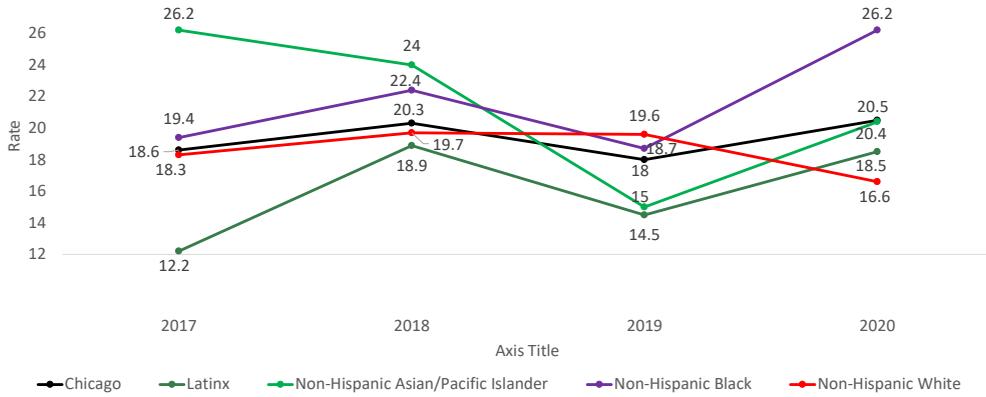


Age-adjusted rates per 100,000 Chicago residents  
 Counts: Underlying cause of death based on ICD-10 coding

Source: IDPH vital records as analyzed by CDPH Office of Epidemiology

Overall HIV mortality increased by 18% from 2019 to 2020. Increases were seen among all racial-ethnic groups. Male Chicagoans saw a 32% increase in HIV mortality, while female Chicagoans saw a 17% decrease in HIV mortality.

**The citywide overall flu/pneumonia death rate increased 14% during the first year of the pandemic**

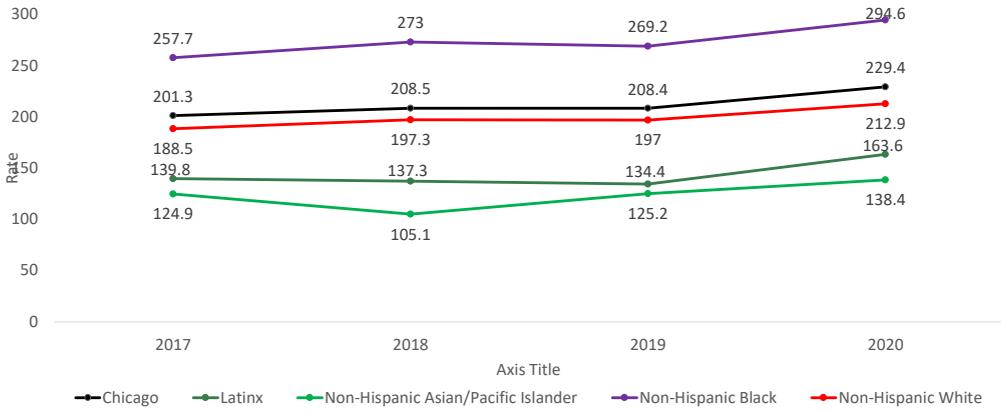


Age-adjusted rates per 100,000 Chicago residents  
 Counts: Underlying cause of death based on ICD-10 coding

Source: IDPH vital records as analyzed by CDPH Office of Epidemiology

The annual death rates from flu and pneumonia combined increased by 14% from 2019 to 2020, but they were 9x times lower than the overall 2020 death rate from COVID-19. There was a large disparity in the change in flu and pneumonia death rates by race-ethnicity: Latinx, Asian/Pacific Islander and Black Chicagoans saw increases of 28%, 36% and 40%, respectively, while white Chicagoans saw a decrease of 15%.

**Death rates from heart disease increased by 10% during the first year of the pandemic.**

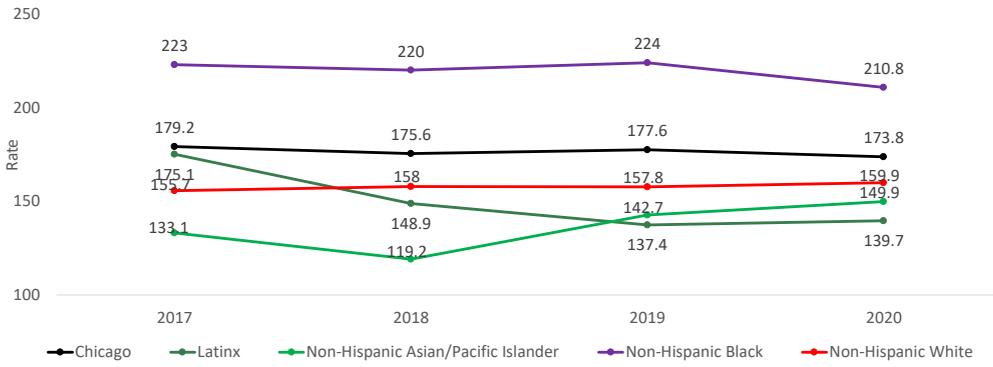


Age-adjusted rates per 100,000 Chicago residents  
 Counts: Underlying cause of death based on ICD-10 coding

Source: IDPH vital records as analyzed by CDPH Office of Epidemiology

Death rates from heart disease increased by 10% during the first year of the pandemic. Increases were observed among all race-ethnicities and both males and females

**Death rates from cancer decreased 5% overall during the first year of the pandemic**

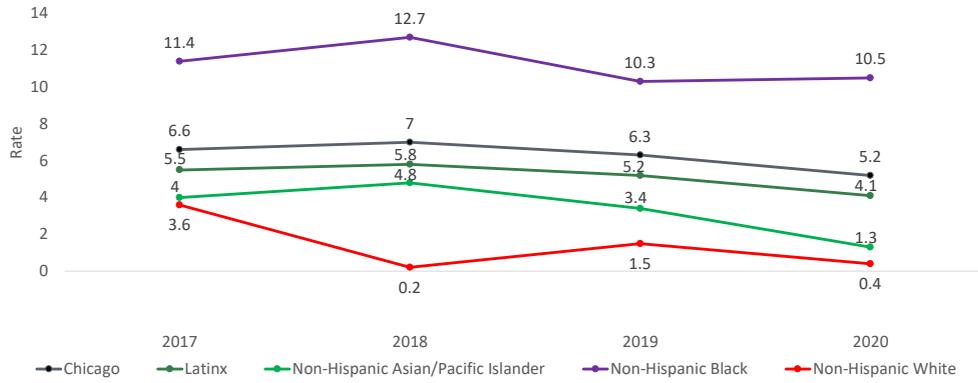


Age-adjusted rates per 100,000 Chicago residents  
 Counts: Underlying cause of death based on ICD-10 coding

Source: IDPH vital records as analyzed by CDPH Office of Epidemiology

Death rates from cancer decreased 5% among Chicagoans during the first year of the pandemic. This overall decrease was primarily driven by decreases among Blacks and females from 2019 to 2020.

**Overall infant mortality declined during the first year of the pandemic in all race/ethnicity groups except Black Chicagoans.**



Age-adjusted rates per 100,000 Chicago residents  
 Counts: Underlying cause of death based on ICD-10 coding

Source: IDPH vital records as analyzed by CDPH Office of Epidemiology

The overall infant mortality rate decreased by 17% from 2019 to 2020. Declines in infant mortality rates among Latinx Chicagoans were 22%. Sharp declines were seen in Asian/Pacific Islanders (62%) and whites (73%). The infant mortality rate for Black Chicagoans, however, increased slightly.

## Healthy Chicago Survey Methods



### Healthy Chicago Survey 2020 (HCS Core)

- Survey invitations mailed to a random sample of over 14,000 addresses across all 77 community areas
- 113-question web/mail survey covering a broad range of health-related topics
- Conducted June to December 2020
- Completed survey: n=4,517 (38% response rate)
- English, Spanish

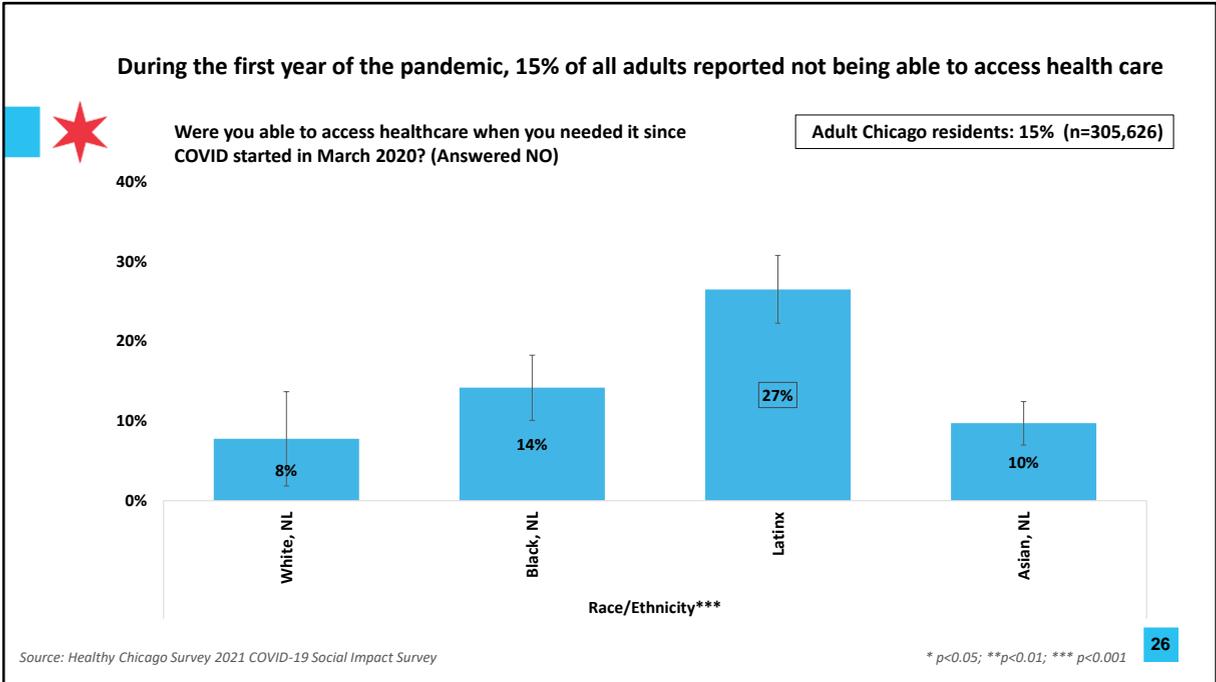
### Healthy Chicago Survey 2021 COVID-19 Social Impact Survey

- 3,293 HCS Core respondents agreed to be re-contacted for additional survey
- 67-question web/mail survey focused on COVID-19 impact
- Conducted April to May 2021
- Completed: n=2,198 (67% response rate)
- English, Spanish

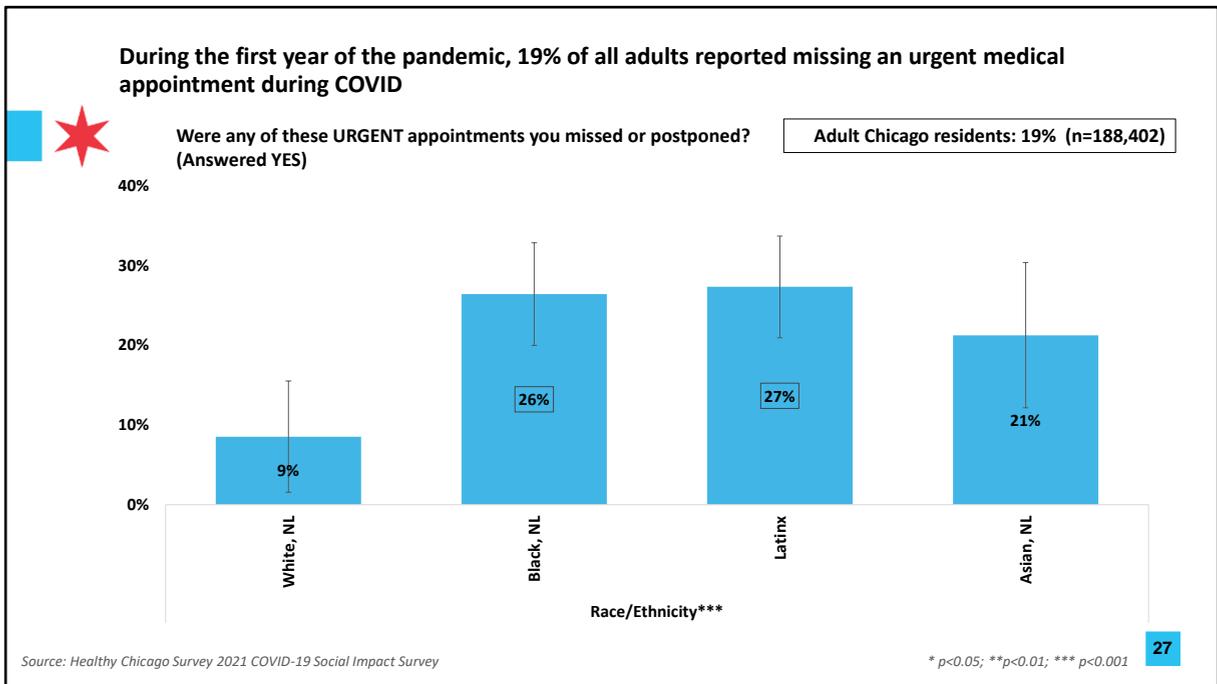
*\*Weighting is a statistical adjustment to a survey sample to permit inferences to be made at a population level*

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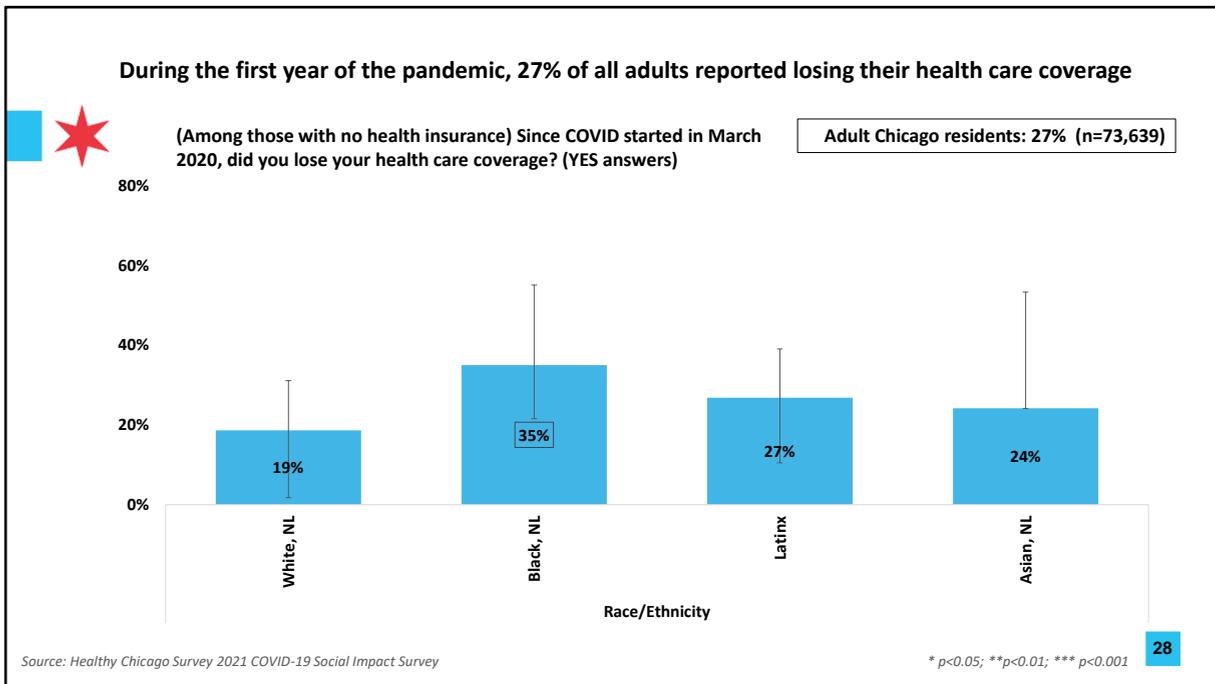
Survey Conducted by Chicago Department of Public Health and RTI International. Two waves of the Healthy Chicago Survey were fielded after the pandemic began in March 2020: The Healthy Chicago Survey 2020 Core was fielded from June to December of 2020, and the Healthy Chicago Survey 2021 COVID-19 Social Impact Survey was fielded April and May of 2021. Analysis conducted by Chicago Department of Public Health and the DePaul University – Department of Health Sciences



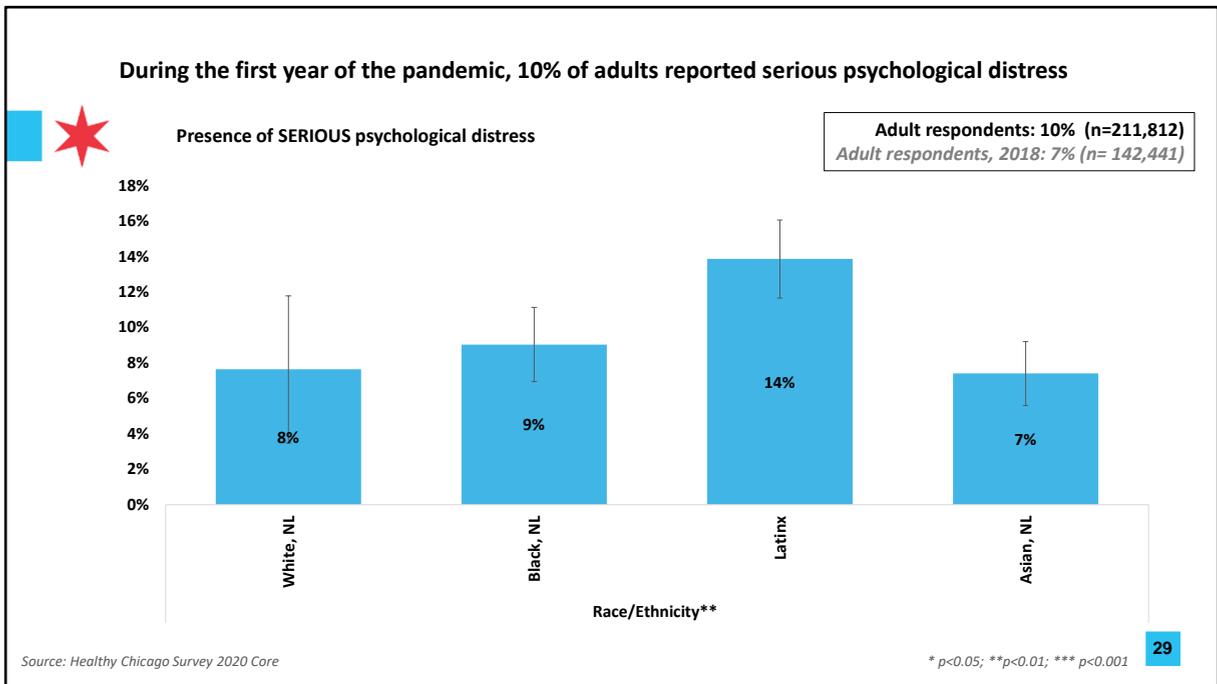
Among all racial-ethnic groups, 27% of Latinx Chicagoans reported not being able to access health care when they needed it since the pandemic began in March 2020.



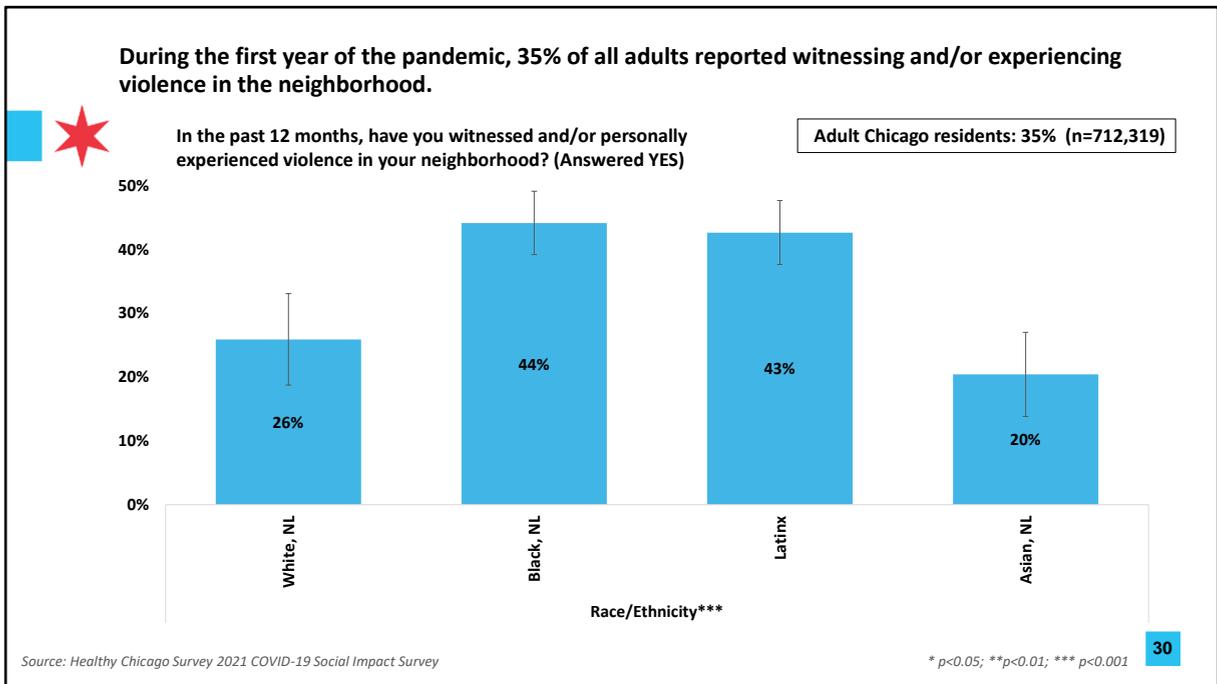
Overall, 19% of Chicagoans who reported missing a medical appointment reported missing an URGENT medical appointment during the second year of the pandemic. White Chicagoans were two to three times less likely to report missing an urgent medical appointment than other racial-ethnic groups.



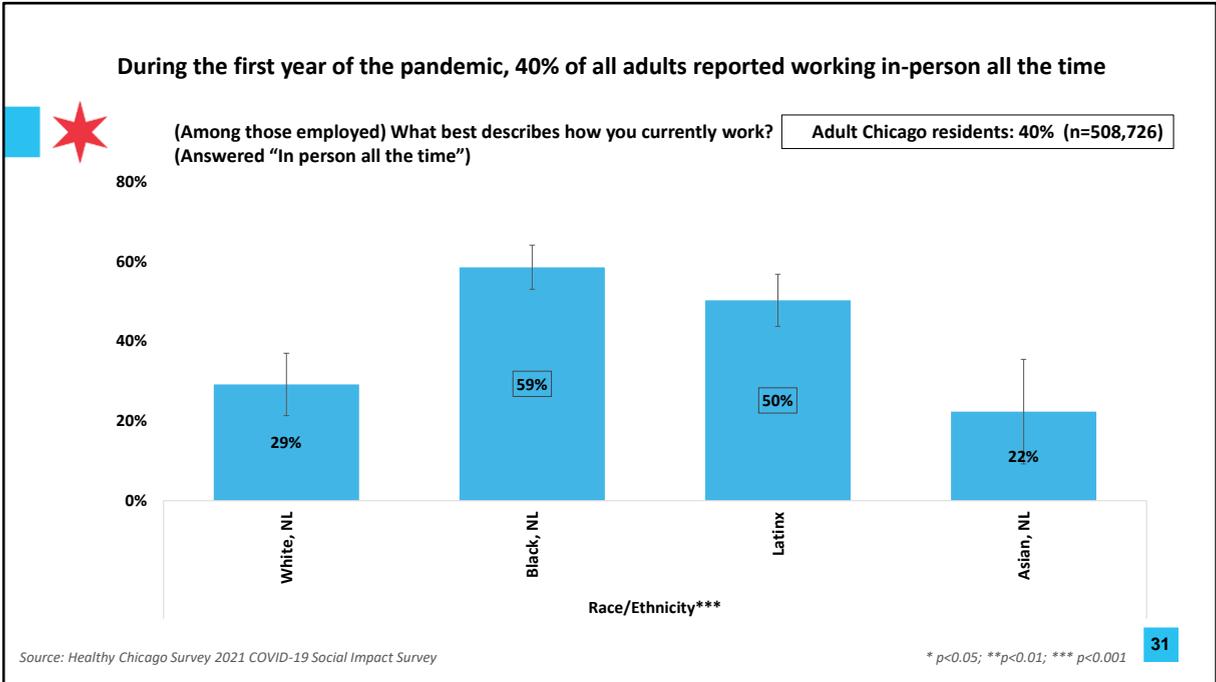
27% of adult Chicagoans reported losing their health care coverage since the beginning of the pandemic. Black Chicagoans were most likely to report losing their health care coverage, 35%, nearly twice that of the 19% of white Chicagoans who reported losing their health care coverage.



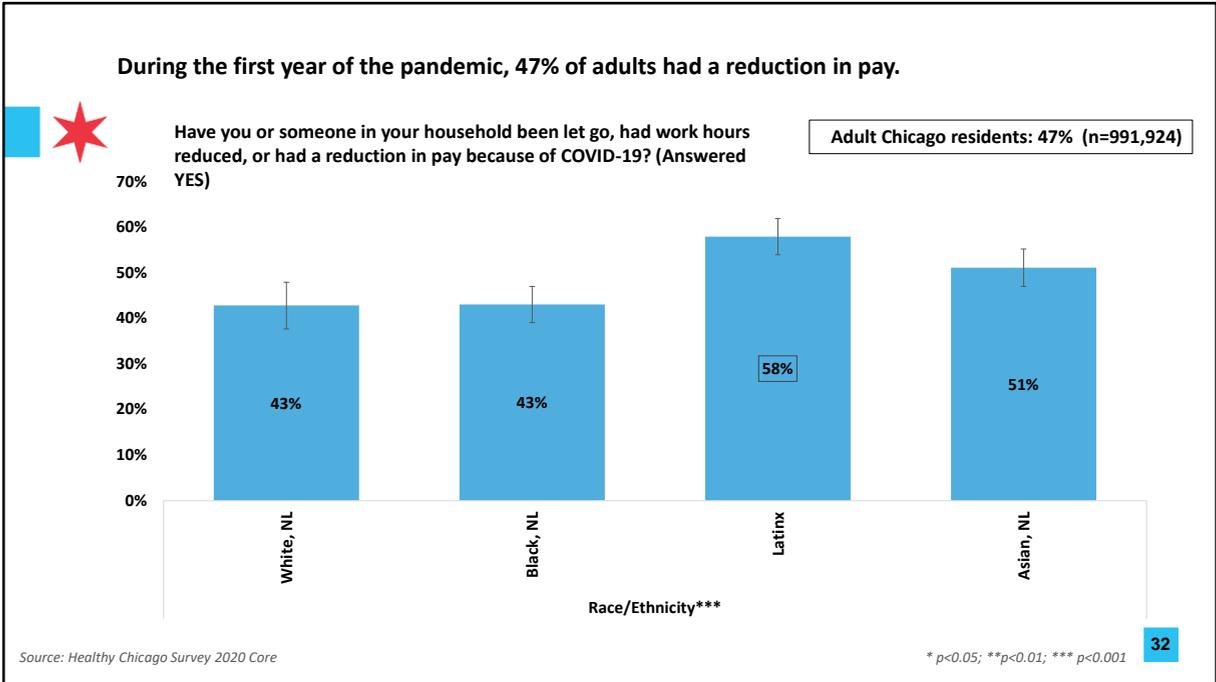
Serious psychological distress was reported by 10% of all adult Chicagoans in 2020, up from 7% in 2018. Latinx Chicagoans were most likely to report experiencing serious psychological distress.



In 2020, 35% of adult Chicagoans reported witnessing and/or personally experiencing violence in their neighborhoods. This varied by race-ethnicity greatly: 44% and 43% of Black and Latinx Chicagoans, respectively, reported witnessing and/or experiencing violence in their neighborhoods compared to 26% and 20% of white and Asian/Pacific Islander Chicagoans, respectively.

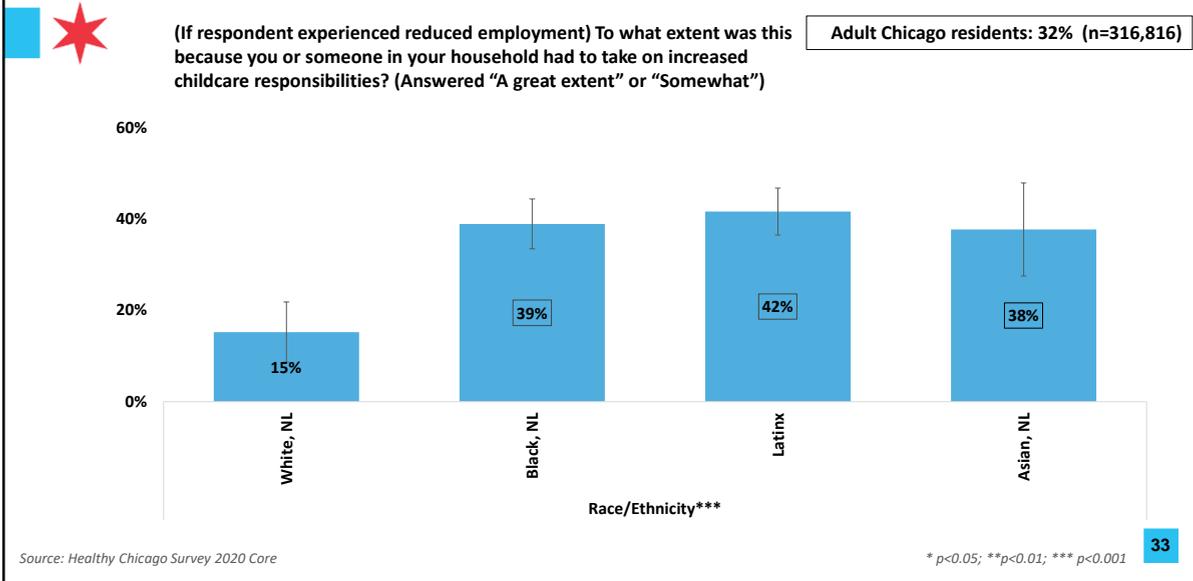


In 2021, 40% of all employed adult Chicago residents reported working in-person all the time, as opposed to working remotely all or part of the time. Black Chicagoans were more than twice as likely as white Chicagoans to report working in-person all the time; Latinx Chicagoans were nearly three-quarters more likely than white Chicagoans to report working in-person all the time.

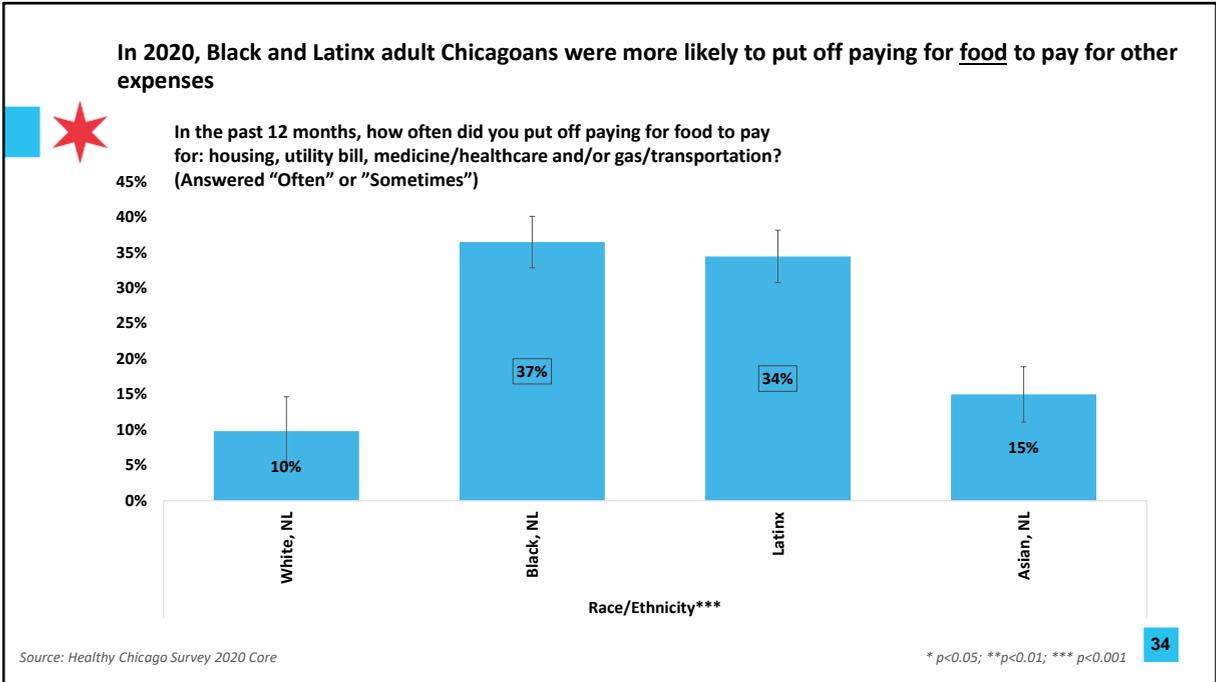


Nearly half of all adult (18 years and older) Chicagoans reported that they and/or someone in their household had a reduction in employment and/or pay during the first year of the pandemic. Of all the racial-ethnic groups, Latinx Chicagoans were most likely to report a reduction in pay, at 58%.

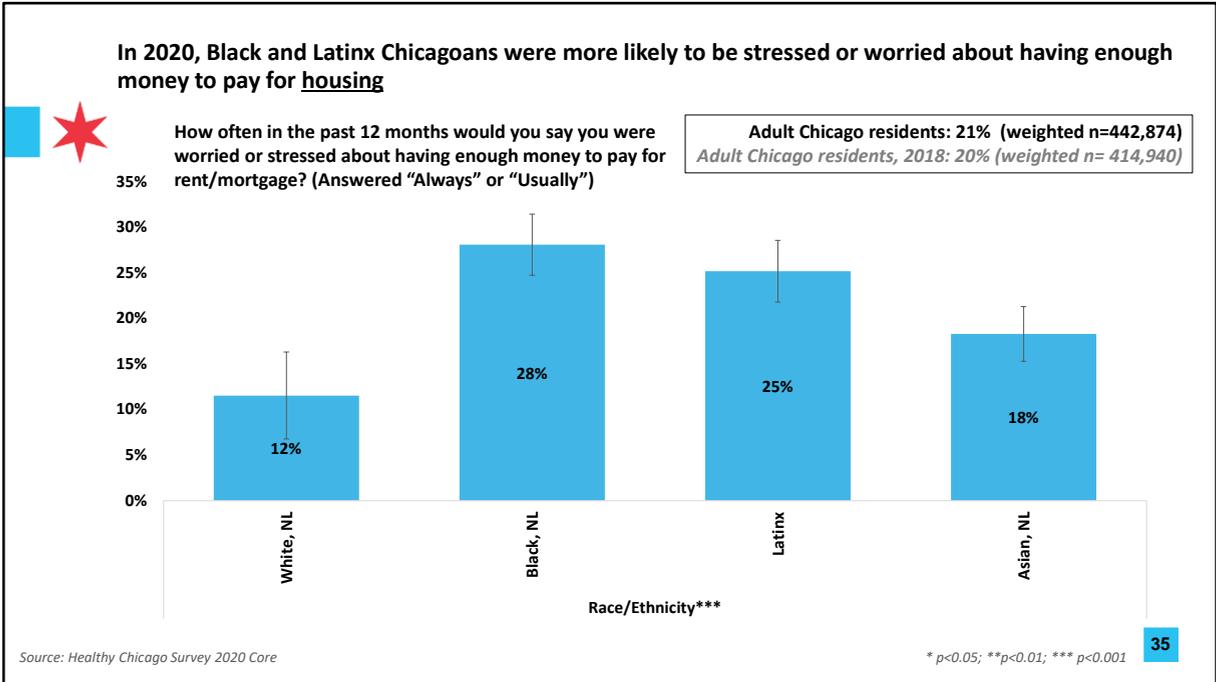
**During the first year of the pandemic, 32% of adults had a reduction in pay due at least in part to childcare.**



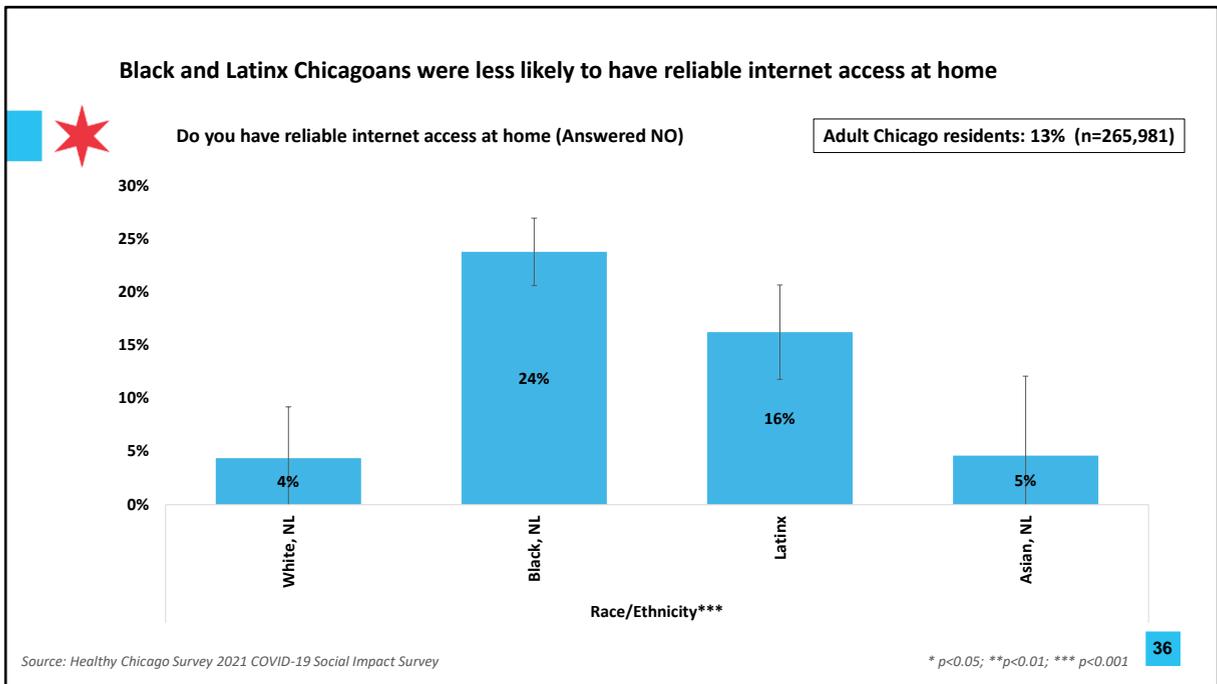
Among all adult Chicagoans who reported a reduction in employment and/or pay in their households during the first year of the pandemic, one-third reported that this reduction was due at least in part to increased childcare responsibilities. Among all racial-ethnic groups, white Chicagoans were least likely to report that their reduction in pay/employment was due to childcare responsibilities.



In the first year of the pandemic, Black and Latinx adult Chicagoans were more than 3 times more likely than white adult Chicagoans to report putting off paying for food to pay for other expenses, and more than twice as likely as Asian/Pacific Islander Chicagoans.



In 2020, 21% of adult Chicagoans reported being “always” or “usually” worried or stressed about having enough money to pay for housing in the previous 12 months. While nearly identical to 2018 levels, this varied greatly by race-ethnicity. 28% and 25% of Black and Latinx Chicagoans, respectively, reported being worried about having enough money to pay for housing, more than double that of white Chicagoans.



Compared to white Chicagoans, Latinx Chicagoans were four times less likely to have reliable internet access at home, and Black Chicagoans were six times less likely to have reliable internet access at home.

To explore more health data about Chicago and your community please visit:



[chicagohealthatlas.org](https://chicagohealthatlas.org)

